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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KIM, PAUL

ART UNIT

PAPER NUMBER

2169

NOTIFICATION DATE

DELIVERY MODE

01/08/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

Office Action Summary	Application No. 10/626,824	Applicant(s) SILAGI ET AL.	
	Examiner PAUL KIM	Art Unit 2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-24 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-24, 26-27 is/are rejected.
- 7) ☒ Claim(s) 27 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This Office action is responsive to the following communication: Amendment filed on 29 October 2008.
2. Claims 1-11, 13-24, and 26-28 are pending and present for examination.

Response to Amendment

3. Claim 1 has been amended.
4. No claims have been cancelled.
5. No claims have been added.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. **Claims 1-11, 13, and 27** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The method claim of the aforementioned claims fail to fall within the statutory categories of 35 U.S.C. 101 because the method claim is neither (1) tied to another statutory class (i.e. particular machine or apparatus) nor does it (2) transform underlying subject matter (such as an article or material) to a different state or thing. Accordingly, the method claim (i.e. a process) fails to may be performed mentally or manually in a manner that reasonably accomplishes the intended purpose of the recited invention, as claimed, without the use of a structure.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claim 1-8 and 14-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cuccia (U.S. Patent No. 6,157,673), filed on 26 December 1996, and issued on 5 December 2000, in view of Anderson et al (U.S. Patent No. 6,181,706, hereinafter referred to as ANDERSON), filed on 26 September 1997, and issued on 30 January 2001, and in further view of MIN (U.S. Patent No. 7,088,732, hereinafter referred to as MIN), filed on 26 March 2002, and issued on 8 August 2006.

10. **As per independent claims 1 and 14**, CUCCIA, in combination with ANDERSON and MIN, discloses:

A method for collecting multimedia program information from a plurality of multimedia transport streams, comprising:

receiving a plurality of transport streams, each of which contains program information regarding multimedia programs carried in the transport stream {See CUCCIA, C1:L11-14, wherein this reads over "extraction of program specific information (PSI) from the multiple transport streams"},

receiving requests for collecting program information, said requests identifying program information to be collected from one or more of the transport streams {See CUCCIA, C3:L21-23, wherein this reads over "the action of the decoder requires the extraction of program specific information (PSI) from the transport stream newly applied to the transport decoder"} and said request including a first list of requested program information and a second list of requested program information different from the first list of requested program information {See MIN, C1:L44-53, wherein this reads over "[a] synchronous signal detecting and PID extracting unit 210 extracts the 13-bit PID of a current received packet and stores the 13-bit PIN"},

obtaining program information packets {See ANDERSON, C4:L52-58, wherein this reads over "[a] transport stream is a collection of transport stream packets, linked by standard tables"} from the plurality of transport streams as they are received {See CUCCIA, C2:L25-39, wherein this reads over "decoding data corresponding to a program from a first transport stream"}, the obtained program information packets containing first received program information and second received program information; and

matching the first received program information {See CUCCIA, C2:L25-39, wherein this reads over "extracting program specific information from a second transport stream, indicating a correspondence between packet ID numbers and data for programs in said stream"} with a first list of requested program information {See ANDERSON, C9:L1-34, wherein this reads over "[t]he 13 bit PID value is sent to the PID filter to determine if a match occurs. Packets that mach a PID filter entry are forwarded, while all other packets, including null packets, are discarded"}; and

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if the first received program information matches information in the first list of requested program information {See MIN, C2:L45-50, wherein this reads over "a first comparing unit to compare the first portion of the current PID with the first portion of the possible PIDs stored in the plurality of PID stores; and a second comparing unit to compare the second portion of the current PID with the second portion of the possible PIDs stored in the plurality of PID stores"; and C2:L50-55, wherein this reads over "a control unit for generating a match signal if the first portion of the current PID matches the first portion of one of the possible PIDs . . ."}, matching the second received program information {See CUCCIA, C2:L25-39, wherein this reads over "extracting program specific information from a second transport stream, indicating a correspondence between packet ID numbers and data for programs in said stream"} with a second list of requested program information {See ANDERSON, C9:L1-34, wherein this reads over "[t]he 13 bit PID value is sent to the PID filter to determine if a match occurs. Packets that mach a PID filter entry are forwarded, while all other packets, including null packets, are discarded"}.

While Cuccia may fail to expressly disclose that the first and second list of request program information are different from each other, Min discloses an invention wherein a first and second portion of a PID wherein each PID would relate to a first and second list of request program information. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CUCCIA by combining it with the invention disclosed by MIN. The results of this combination would lead to a method wherein transport streams would contain a plurality of different program information.

While the combination of Cuccia and Min may fail to expressly disclose the obtaining of program information packets and the matching of the program information, Anderson discloses a method wherein program specific information is transferred via transport stream packets and compared. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CUCCIA by combining it with the invention disclosed by ANDERSON and MIN. The results of this combination would lead to a method for collecting multimedia program information from a plurality of transport streams through the use of PID filters which filters incoming transport packets. Additionally, the results of this combination would lead to a method for comparing a plurality of requested program information with a plurality of received program information.

One of ordinary skill in the art would have been motivated to do this modification such that program identifier data may be captured from a broadband transcoder multiplexer.

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11. **As per dependent claims 2 and 15**, CUCCIA, in combination with ANDERSON and MIN, discloses:

The method of claim 1 wherein at least once of the transport streams is an MPEG transport stream {See CUCCIA, C1:L7-10, wherein this reads over "multiple transport streams, such as MPEG-2 [] encoded data streams"}.

12. **As per dependent claims 3 and 16**, CUCCIA, in combination with ANDERSON and MIN, discloses:

The method of claim 1 wherein the requested program information is comprised of multiple fields {See CUCCIA, Figure 3}.

13. **As per dependent claims 4 and 17**, CUCCIA, in combination with ANDERSON and MIN, discloses:

The method of claim 3 wherein said fields include at least one Program Identification (PID) Code {See CUCCIA, Figure 3; and C3:L32-33, wherein this reads over "[w]ithin each header PH is a 13 bit packet identification number or PID"}.

14. **As per dependent claims 5 and 18**, CUCCIA, in combination with ANDERSON and MIN, discloses:

The method of claim 1 wherein the steps of matching the first received program information and matching the second received program information is done asynchronously with respect to said receiving step {See CUCCIA, C2:L59-63, wherein this reads over "transport streams may be supplied from different source types such as modems, asynchronous transfer mode (ATM) networks"}.

15. **As per dependent claims 6 and 19**, CUCCIA, in combination with ANDERSON and MIN, discloses:

The method of claim 1 further comprising the step of notifying an application requesting the program information once a match is located {See CUCCIA, C4:L59-64, wherein this reads over "the extracted PSI is conveyed via microcontroller to the mapping function of the host processor of decoding system where it is used to store and maintain a global map of channel number s to transport stream and associated PSI"}, for the first received program information and the second received program information.

16. **As per dependent claims 7 and 20**, CUCCIA, in combination with ANDERSON and MIN, discloses:

The method of claim 6 wherein the application requesting the program information periodically queries the status of the request {See CUCCIA, C3:L10-12, wherein this reads over

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"[m]apping function is accessed in response to a channel change request issued from a user interface function".

17. **As per dependent claims 8 and 21**, CUCCIA, in combination with ANDERSON and MIN, discloses:

The method of claim 1 wherein the program information carried in the transport streams is received out of the sequence specified in the request {See CUCCIA, C1:L21-23, wherein this reads over "[a]ny one MPEG-2 transport stream may contain multiple programs for presentation to the user"}.

18. **Claims 9 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over CUCCIA, in view of ANDERSON and MIN, and in further view of Metz et al (U.S. Patent No. 5,666,293), filed on 3 July 1995, and issued on 9 September 1997.

CUCCIA, ANDERSON, and MIN teach the limitations of claims 1-8, 14-21, and 27-28 for the reasons stated above.

CUCCIA, ANDERSON, and MIN differ from the claimed invention in that they fail to expressly disclose the division of lists for search purposes (claims 9 and 22).

19. **As per dependent claims 9 and 22**, CUCCIA, in combination with ANDERSON, MIN, and METZ, discloses:

The method of claim 1 wherein said processing includes dividing the requested information into multiple lists and searching each list as program information is received from the transport streams {See METZ, C12:L40-45, wherein this reads over "a number of packets used to find and decode desired sequences of packets in the stream, for example a program association map (PID), one or more program map tables and a network table"}.

The combination of inventions disclosed by CUCCIA, ANDERSON, MIN, and METZ would disclose an invention wherein multiple lists are created for search of program information as the program information is received from the transport streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CUCCIA, ANDERSON, and MIN by combining it with the invention disclosed by METZ.

One of ordinary skill in the art would have been motivated to do this modification to improve search efficiency.

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20. **Claims 10-11 and 23-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over CUCCIA, in view of ANDERSON and MIN, in view of METZ, and in further view of Look et al (U.S. Patent No. 6,747,906, hereinafter referred to as LOOK), filed on March 30, 2000, and issued on June 29, 2004.

CUCCIA, ANDERSON, and MIN teach the limitations of claims 1-8, 14-21, and 27-28 for the reasons stated above.

CUCCIA, ANDERSON, and MIN differ from the claimed invention in that they fail to expressly disclose a linear search algorithm which is used to conduct the search (claims 10 and 23).

CUCCIA differs from the claimed invention in that CUCCIA fails to disclose a binary search algorithm which is used to conduct the search (claims 11 and 24).

21. **As per dependent claims 10 and 23**, CUCCIA, in combination with ANDERSON, MIN, METZ and LOOK, discloses a linear search algorithm which is used to conduct the search {See LOOK, col. 6, lines 1-8, wherein this reads over "linearly parse the stream from the beginning to find the desired location"}.

The combination of inventions disclosed in by CUCCIA, METZ and LOOK would disclose an invention wherein a linear search algorithm is used to conduct the search of transport streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CUCCIA and METZ by combining it with the invention disclosed by LOOK.

One of ordinary skill in the art would have been motivated to do this modification because a linear search algorithm is a well-known search method within the art.

22. **As per dependent claims 11 and 24**, CUCCIA, in combination with ANDERSON, METZ and LOOK, discloses a binary search algorithm which is used to conduct the search {See LOOK, col. 5, line 66 – col. 6, line 6, wherein this reads over "[a] binary search can be performed on a stored file to index into a stream. Each stream is stored as a sequence of fixed-size segments enabling fast binary searches"}.

The combination of inventions disclosed in by CUCCIA, ANDERSON, MIN, METZ and LOOK would disclose an invention wherein a binary search algorithm is used to conduct the search of transport streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the

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invention was made to modify the above invention suggested by CUCCIA and METZ by combining it with the invention disclosed by LOOK.

One of ordinary skill in the art would have been motivated to do this modification because a binary search algorithm, a well-known search method within the art, improves the search efficiency.

23. **Claims 13 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over CUCCIA, in view of ANDERSON and MIN, and in further view of Official Notice.

24. **As per dependent claims 13 and 26**, the Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art to have multiple receivers simultaneously receiving requests from different applications.

Allowable Subject Matter

25. Claims 27 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

26. Applicant's arguments filed 29 October 2008 have been fully considered but they are not persuasive.

a. Claim Rejections under 35 U.S.C. 103

Applicant asserts the argument that the combination of Cuccia, Anderson, and Min fails to each the limitation of "receiving a request for [collecting] program information ... [said] request ... include[ing] a first list of requested program information and a second list of requested program information different from the first list of requested program information." See Amendment, page 8. The Examiner respectfully disagrees. Specifically, Applicant further asserts the argument that the first and second lists of request program information may be distinguished in that the first list includes "PID values" and the second list includes "Table ID,

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Table ID extension, Version Number, Section Number, etc." See Amendment, page 9. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a differentiation between the data store for the first list of program information and the second list of request program information) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Additionally, Applicant asserts the argument that "there is no motivation apparent in the references to combine Min, Cuccia, and Anderson." See Amendment, page 9. The Examiner respectfully disagrees. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, while Cuccia may fail to expressly disclose that the first and second list of request program information are different from each other, Min discloses an invention wherein a first and second portion of a PID wherein each PID would relate to a first and second list of request program information. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CUCCIA by combining it with the invention disclosed by MIN.

Accordingly, for the aforementioned reasons above, the claim rejections under 35 U.S.C. 103 are maintained.

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Conclusion

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL KIM whose telephone number is (571)272-2737. The examiner can normally be reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Paul Kim
Examiner, Art Unit 2169
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/Paul Kim/